

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

General Electric International, Inc.  
Attn: Mr. Sal Razi  
6045 South Nottingham Avenue  
Chicago, Illinois 60638

Application No.: 04110070

I.D. No.: 031600EIM

Applicant's Designation: LOADTEST

Date Received: November 29, 2004

Subject: Generator Repair

Date Issued:

Expiration Date:

Location: 6045 South Nottingham Avenue, Chicago, 60638

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of two steam generators, two steam cleaning booths, two ovens, two paint spray booths, natural gas-fired heating units, one generator test stand, and one natural gas-fired Babbit melting pot pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 25 tons per year of volatile organic material (VOM) and combined hazardous air pollutants (HAPs), 10 tons per year of each single HAP, and 100 tons per year of nitrogen oxides (NO<sub>x</sub>)). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
2. This permit is issued based on emissions of particulate matter (PM) from the use of liquid fuel in any fuel combustion emission unit not to exceed 0.1 lb/mmBtu, pursuant to 35 Ill. Adm. Code 212.206.
- 3a. Emissions and operation of coating operations shall not exceed the following limits:

<u>Material</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Coating	0.5	4.9	0.5	4.9
Cleanup Solvent	1.0	12.0	1.0	12.0

These limits are based on the maximum material usage and the maximum VOM content of the coating and solvents. Compliance with the annual limits shall be determined from a running total of 12 months of data.

- b. Pursuant to 35 Ill. Adm. Code 218.204(j)(1), the clear coating applied in the coating lines shall not exceed 4.3 lb VOM/gal of coating (minus water and any compounds which are exempted from the definition of VOM) as applied at each applicator.
- c. Pursuant to 35 Ill. Adm. Code 218.204(j)(4)(B), all other baked coatings applied in the coating lines shall not exceed 2.8 lb VOM/gal of coating (minus water and any compounds which are exempted from the definition of VOM) as applied at each applicator.
- 4a. Emissions and operation of all natural gas combustion equipment shall not exceed the following limits:

Natural Gas Usage		Pollutant	Emission Factor	Emissions	
(mmscf/Mo)	(mmscf/Yr)		(Lb/mmscf)	(Tons/Mo)	(Tons/Yr)
14	140.0	NO <sub>x</sub>	100	0.7	7.0
		CO	84	0.6	5.9
		PM	7.6	0.1	0.6
		VOM	5.5	0.1	0.4
		SO <sub>2</sub>	0.6	0.1	0.1

These limits are based on maximum fuel usage and standard AP-42 emission factors. Compliance with the annual limits shall be determined from a running total of 12 months of data.

- b. Natural gas shall be the only fuel fired in the fuel combustion equipment. Use of any other fuel requires a permit change.
- c. This permit is also issued based on negligible process emissions of particulate matter from the natural gas-fired Babbitt melting pot. For this reason, emissions shall not exceed nominal rates of 0.1 lb/hour and 0.44 tons/year.
- 5a. Emissions from the generators tested with the generator test stand shall not exceed the following limits:

Diesel Fuel		Pollutant	Emissions	
Sulfur Content (Wt. %)	Emission Factor (gm/hp-hr)		(Tons/Month)	(Tons/Year)
0.3	10.3	NO <sub>x</sub>	5.0	29.7
	0.67	CO	0.3	1.9
	0.42	PM	0.2	1.2
	0.57	SO <sub>2</sub>	0.3	1.7
	0.19	VOM	0.1	0.6

These limits define the actual emissions of NO<sub>x</sub>, CO, PM, SO<sub>2</sub>, and VOM and are based on 35 Ill. Adm. Code 214.122(b)(2), manufacturers stack test results, maximum power capacity of 2,610 braking horsepower, and maximum annual operation of 1,000 hours. Compliance with annual shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

- b. The Permittee is also allowed to operate the generators to provide emergency electrical power, providing the permitted monthly and annual limits of emissions as specified above are not exceeded.
- c. The power capacity of the generators tested in the test stand shall not exceed 2,610 braking horsepower (1,880 kW-hr) and the maximum annual hours of operation shall not exceed 1,000 hours.
- d. Diesel fuel shall be the only fuel combusted in the generators. Use of any other fuel requires a permit change.
- e. The only fuel fired in the diesel-powered emergency generator shall be distillate fuel oil (Grades No. 1 and 2 oil).
- f. At the above location, the Permittee shall not keep, store, or utilize distillate fuel oil (Grades No. 1 and 2) with a sulfur content greater than the larger of the following two values:
  - i. 0.28 weight percent, or
  - ii. The wt. percent given by the formula: Maximum wt. percent sulfur =  $(0.000015) \times (\text{Gross heating value of oil, Btu/lb})$ .
- g. Organic liquid by-products or waste materials shall not be used in the diesel-powered emergency generator without written approval from the Illinois EPA.
- h. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
- i. The Permittee shall notify the Illinois EPA prior to any change in the type of fuel used at the source.
- j. The Permittee shall keep a maintenance and repair log for the engine-generator, listing significant activities performed with date.
- 6a. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, pursuant to 35 Ill. Adm. Code 214.301.
- b. Pursuant to 35 Ill. Adm. Code 214.304 the emissions from the burning of fuel at process emission units located in the Chicago major metropolitan areas shall comply with 35 Ill. Adm. Code 214.122(b)(2), which provides that:

No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 mmBtu/hr), burning liquid fuel exclusively to exceed 0.3 lbs of sulfur dioxide per mmBtu of actual heat input when distillate fuel oil is burned. For this purpose, the sulfur content in the diesel fuel shall not exceed 0.3% by weight.

7. The Permittee shall maintain monthly records of the following items:
  - a. Name and identification of each coating and solvent used;
  - b. Amount of each coating and solvent used (tons/month and tons/year);
  - c. VOM and HAP content of each coating and solvent, as applied (lb VOM/gallon);
  - d. Natural gas usage (mmscf/mo and mmscf/yr);
  - e. Power capacity of each generator tested (kW or Hp);
  - f. Hours of operation of the generator test stand (hr/mo and hr/yr);
  - g. Records of the sulfur content of the diesel fuel demonstrating, either by actual test results or by the use of the refiner/vendor supplied MSDS, the sulfur content of the fuel oil received, percent by weight; and
  - h. VOM and NO<sub>x</sub> emissions (ton/mo and ton/yr).
8. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
9. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
10. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this, please call Randy Solomon at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

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cc: Illinois EPA, FOS Region 1  
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the generator repairing plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, e.g., 25 tons per year of VOM and combined HAPs, 10 tons per year of each single HAP and 100 tons per year of NO<sub>x</sub> at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

	VOM	NO <sub>x</sub>	CO	SO2	PM	HAP	
	<u>(T/Yr)</u>	<u>(T/Yr)</u>	<u>(T/Yr)</u>	<u>(T/Yr)</u>	<u>(T/Yr)</u>	Single <u>(T/Yr)</u>	Combined <u>(T/Yr)</u>
Coating and Cleanup	16.9					< 10	< 25
Generator Testing	0.6	29.7	1.9	1.7	1.2		
Natural Gas	0.4	7	5.9	0.1	0.6		
Babbit Melting Pot					0.44		
Totals:	<u>17.9</u>	<u>36.7</u>	<u>7.8</u>	<u>1.8</u>	<u>2.24</u>	<u>&lt; 10</u>	<u>&lt; 25</u>

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